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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/624,831 | 07/25/2000 | Steven E. Baker | 98-0487.12 | 7340 |

21491 7590 11/21/2005

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EXAMINER

FOWLKES, ANDRE R

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/624,831 | BAKER, STEVEN E. | |
| | Examiner | Art Unit | |
| | Andre R. Fowlkes | 2192 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/10/05 has been entered.

Claim Objections

2. The amendment is objected to under 35 U.S.C. 132 and 37 CFR 1.121 as it appears to be introducing new matter not supported by the original disclosure. The original disclosure does not reasonably convey to a designer of ordinary skill in the art that applicant was in possession of the amended subject matter at the time the application was filed. See *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981).

Specifically, there is no support given, from the original disclosure, for amended claims 1 and 5. There appears to be a typo, in that claim 1, section b should be deleted. Presently, claim 1, section b describes the simulation of the execution of file X. However, claim 1, section a discloses that the execution of file X, alone results in a simulation being performed. Sections a and b of claim 1, in combination, perform the simulation of a file that in itself performs a simulation. This situation does not appear to

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be described or implied in the specification or arguments. A similar situation exists in claim 5.

To overcome this objection, applicant may attempt to demonstrate that the original disclosure establishes that he or she was in possession of the amended subject matter or provide the page and line numbers, from the specification, in support of each change in the amended claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amberg et al (Amberg), U.S Patent No. 5,991,543 in view of Rickel et al. (Rickel), U.S. Patent No. 5,854,924, further in view of Houghton, "Macromedia Flash 3", June 1999 issue of PC Update (art made of record).

As per claim 1, Amberg discloses:

- a method of testing a process that downloads and installs customer ordered software onto a target computer (abstract lines 1-2, "A method for installing and/or testing software for build to order computer systems").

- dynamically generating a file that contains instructions that when executed simulates the installation of customer ordered software to a target computer (col. 3 line 66 – col. 4 line 17, “Step maker 140 is a computer system configured to sequence the software installation ... steps to be run on target system 160. To sequence the software installation ... steps, step maker 140, and more particularly, sequencing program 204 residing on step maker 140, first reads a plurality of component descriptors from descriptor file 96... sequencing program 204 retrieves a plurality of software installation ... steps corresponding to the component descriptors ... over (the) network connection 110... Having retrieved the software installation ... steps appropriate for target system 160, sequencing program 204 sequences the steps ... the output files include text files containing command lines appropriate for executing the appropriate software installation ... steps upon target system”).

- that the outcome of the execution of said file is determined (col. 4 line 65-67, “Following the execution of the software installation and/or testing steps, results (the outcome) of the installation and tests are logged).

-reporting said syntax errors and flow errors in a readable format (col. 14 lines 22-26, “results from the installation and testing may be logged ... the results preferably include whether all the steps were completed successfully and what types of failures ... were encountered”).

Amberg does not explicitly disclose generating a file **on a simulation computer, simulating the execution of said dynamically generated file in accordance with a**

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set of evaluation rules, or analyzing the outcome of the simulation of the execution of said file to determine possible syntax errors and possible flow errors.

However, Rickel, in an analogous environment, discloses generating a file **on a simulation computer** (col. 7 lines 46-47, "code for the intermediate file 16 is generated", and figure 1a shows the intermediate file within the debugging system. Figure 1b and the associated text (e.g. col. 2 lines 45-47) shows the computer that is used to store and use the debugging tool), **simulating the execution of said dynamically generated file in accordance with a set of evaluation rules.** (col. 1 line 55 – col. 2 line 9, "The static debugging tool includes an analyzer for causing the computer to statically analyze (i.e. simulate) a representation of a ... file to detect the presence of program errors... without executing the ... file ... the debugging tool may include a system call and restrictions library (i.e. rules file) for providing information to the static debugging tool which is specific to particular system that the ... file is designed to be used"), and **analyzing the outcome of the simulation of the execution of said file to determine possible syntax errors and possible flow errors** (col. 2 lines 19-29, "The analyzer detects the errors and potential errors in the ... file by following all of the possible flow paths of the ... file while tracking the use of various program parameters ... These various program parameters ... may include checking for ... inconsistent use of a certain variable type (i.e. syntax errors)").

Therefore, it would have been obvious to a person of ordinary skill in that art at the time the invention was made to incorporate the teachings of Rickel into the

teachings of Amberg to generate a file on a simulation computer, simulate the execution of the dynamically generated file in accordance with a set of evaluation rules, and analyze the outcome of the simulation of the execution of said file to determine possible syntax errors and possible flow errors. The modification would have been obvious because one of ordinary skill in the art would want to save time and testing costs by generating and testing the file on the simulation computer. One of ordinary skill in the art would have also been motivated to use rules to simulate the execution of the dynamically generated file in order to safely test many aspects of the file, without having to actually execute the file. Additionally, one of ordinary skill in the art would have wanted to analyze the outcome of the simulation of the execution of said file in order to find and correct possible syntax and flow errors in order to produce a defect-free file without the risk or expense of actually executing the file to identify the errors.

The Amberg/Rickel combination doesn't explicitly disclose **simulating the process of downloading** a file. However, Houghton, in an analogous environment, discloses **simulating the process of downloading** a file, (figure 7, "The bandwidth Profiler", and associated text (e.g. p. 3:1-10).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Houghton into the Amberg/Rickel combination to **simulating the process of downloading** a file. The modification would have been obvious because one of ordinary skill in the art would have wanted to estimate and optimize the speed of a download (Houghton, p. 3:2-4).

As per claim 2, the rejection of claim 1 is incorporated and further Amberg discloses that **said dynamically generated file is a main batch file created from a static text file that indicates the model types of the computer a lookup file that indicates the necessary instruction required to be executed for the model type indicated, and a process that reads the model type from said static text file and creates said dynamically generated file by reading said lookup file to determine command components** (col. 3 line 51 – col. 4 line 17, “To sequence the software installation ... steps, ... (a) sequencing program ... reads a plurality of component descriptors ... Component descriptors are computer readable descriptions of the components of (the) target system ... Having sequenced the steps required for target system 160, sequencing program 204 writes a series of ... files ... the output files include text files containing command lines (batch files) appropriate for executing the appropriate software installation ... steps upon target system”).

As per claim 3, the rejection of claim 2 is incorporated and further Amberg discloses that **the main batch file contains one or more labels identifying the flow of the process** (abstract line 10, “creating a file including a start of execution indication (flow label)”), **and one or more commands containing instructions to be executed and one or more calls to one or more static batch files** (col. 12 lines 57-58, “Batch file (an ASCII text file containing a sequence of commands) 870 is then run”).

As per claim 4, the rejection of claim 3 is incorporated and further Amberg discloses that the **process of simulating said dynamically generated batch file comprises recursively simulating each of said one or more batch files to determine the outcome of the process** (A recursive routine is one that can call itself directly or be called by another subroutine, one that it itself has called, and figure 10 shows this behavior. Figure 10 shows the routine Runstep.exe (note that .bat and .exe files are both executable files) being called as a subroutine by the Runstep.bat routine that Runstep.exe called itself).

As per claim 5, Amberg discloses:

- **a first process for creating a second process that simulates the process of downloading and the installation of customer ordered software onto the target computer** (col. 3 line 51 – col. 4 line 17, “To sequence the software installation ... steps, ... (a) sequencing program ... reads a plurality of component descriptors ... Component descriptors are computer readable descriptions of the components of (the) target system ... Having sequenced the steps required for target system 160, sequencing program 204 writes a series of ... files ... the output files include text files containing command lines (batch files) appropriate for executing the appropriate software installation ... steps upon target system”).

- **a third process for recursively interpreting the outcome of the execution of the second process** (Figure 10 shows an example of a recursive routine. The

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routine Runstep.exe is called as a subroutine by the Runstep.bat routine that Runstep.exe previously called).

- **one or more output files that contain information relating to the interpretation of the second process** (col. 14 lines 22-26, "results from the installation and testing may be logged ... the results preferably include whether all the steps were completed successfully and what types of failures ... were encountered").

Amberg doesn't explicitly disclose **a simulation computer comprising an environment that mimics a target computer**.

However, Rickel, in an analogous environment, discloses **a simulation computer comprising an environment that mimics a target computer**. (col. 2 lines 5-10, "the debugging tool (i.e. simulator) may include a system call and restriction library file for providing information to the static debugging tool which is specific to a particular (target computer) system that the ... file is designed to be used").

Therefore, it would have been obvious to a person of ordinary skill in that art at the time the invention was made to incorporate the teachings of Rickel into the system of Amberg to simulate the file on a simulation computer comprising an environment that mimics the target computer. The modification would have been obvious because one of ordinary skill in the art would be motivated to simulate the file to learn the results of the execution of the file, inexpensively on a simulation computer, without the expense of actually executing the file (Rickel, col. 1 lines 15-31).

As per claim 6, the rejection of claim 5 is incorporated and further Amberg discloses that the **first process reads a electronic traveler to determine the model of the target computer , looks up in the master token list the model of the target computer and creates from the information in the master token list a second process that is an executable main batch file that downloads and installs customer ordered computer software onto the target computer** (col. 3 line 51 – col. 4 line 17, “To sequence the software installation ... steps, ... (a) sequencing program (first process) ... reads a plurality of component descriptors (electronic traveler) ... Component descriptors are computer readable descriptions of the components of (the) target system ... Having read the ... component descriptors, sequencing program **204** retrieves ... software installation ... steps corresponding to the component descriptors from the database (master token list) ... Having sequenced the steps required for target system 160, sequencing program 204 writes a series of ... files ... the output files include text files containing command lines (executable batch files) appropriate for executing the appropriate software installation ... steps upon target (computer) system”).

As per claim 7, the rejection of claim 6 is incorporated and further Amberg discloses that **said batch file contains labels, commands, and sub batch file calls** (abstract line 10, “creating a file including a start of execution indication (flow label)”, and col. 12 lines 57-58, “Batch file (an ASCII text file containing a sequence of commands) 870 is then run”).

Amberg doesn't explicitly disclose that **said third process interpretively tracks said labels, simulates each of said commands and recursively evaluates each of said sub batch files until the end of the main batch file is reached by said third process.**

However, Rickel, in an analogous environment, discloses:

- that a **process interpretively tracks said labels** (abstract lines 9 – 11, "the analyzer detects the errors... by following all of the possible flow paths", and the flow paths are labeled, col. 4 lines 62-63, "file 16 includes information (labels) identifying the function flow paths").

- **simulates each of said commands** (col. 2 lines 30 – 32, "the static debugging tool symbolically executes ... (the) file").

- **and recursively evaluated each of said sub batch files until the end of the main batch file is reached** (col. 2 lines 16 - 21, "the (sub batch file) calls within the ... file (are represented symbolically) ... the analyzer detects the errors ... (in the) file by following all of the possible flow paths (recursive as well as iterative) of the ... file").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rickel into the teachings of Amberg to have a system wherein the main batch file contains labels, commands, and sub batch file calls, and a third process that interpretively tracks the labels, simulates each of the commands and recursively evaluates each of the sub batch files. The modification would have been obvious because one of ordinary skill in

the art would be motivated to have robust method of detecting errors in software capable of using the labels in the software to produce detailed error reports.

Response to Arguments

4. Applicants arguments have been considered but they are not persuasive.

In the remarks, the applicant has argued substantially that:

1) The cited art does not disclose the newly added limitation of claim 1, "contains instructions that when executed simulates the process of downloading", at p. 6:2-3.

Examiner's response:

1) In response to applicant's argument that the references fail to show the new limitations of the presently amended claims, it is noted that the newly added limitations upon which applicant relies are fully addressed in the above art rejection.

In the remarks, the applicant has argued substantially that:

2) Amberg actually executes the software installation and/or testing steps, in contrast to applicant's invention which simulates software installation, at p. 6:7-10.

Examiner's response:

2) The examiner disagrees with applicant's characterization of the applied art. Amberg tests the software installation steps by simulating. That is, Amber executes test

(i.e. simulation) steps in the same way as applicants invention simulates the software installation. (See Amberg, col. 3 line 66 – col. 4 line 17 and the above art rejection).

In the remarks, the applicant has argued substantially that:

3) Rickel does not teach or suggest generating on a simulation computer a file that contains instructions s that when executed simulate the process of downloading and installation of customer ordered software, at p. 6:18-7:9

Examiner's response:

3) In response to applicant's argument that the references fail to show the new limitations of the presently amended claims, it is noted that the newly added limitations upon which applicant relies are fully addressed in the above art rejection.

In the remarks, the applicant has argued substantially that:

4) The Rickel art does not perform simulation, at p. 7:17-18.

Examiner's response:

4) Rickel discloses that "The static debugging tool includes an analyzer for causing the computer to statically analyze (i.e. simulate) a representation of a ... file to detect the presence of program errors... without executing the ... file ... the debugging tool may include a system call and restrictions library (i.e. rules file) for providing information to the static debugging tool which is specific to particular system that the ... file is designed to be used", at col. 1 line 55 – col. 2 line 9, as cited in the above art rejection.

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The citation discloses that the outcome of a file operating on a particular platform is determined through the simulated execution of the file on the chosen platform.

In the remarks, the applicant has argued substantially that:

- 5) Rickel and Amberg are not analogous art, at p. 8:16-18.

Examiner's response:

- 5) In response to applicant's argument that Rickel and Amberg are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both patents and the instant application are currently classified in the same class, 717. Additionally, Rickel's software debugging tool, Amberg's software testing system, and the instant application are clearly pertinent to same problem: eliminating errors from software applications.

Conclusion

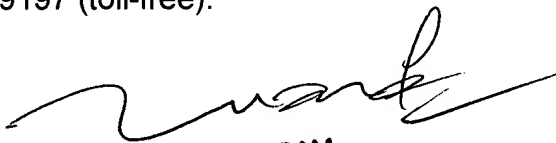
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (571) 272-3697. The examiner can normally be reached on Monday - Friday, 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARF



TUAN DAM
SUPERVISORY PATENT EXAMINER